

AMERICAN FARMER.

RURAL ECONOMY, INTERNAL IMPROVEMENTS, PRICES CURRENT.

"O fortunatos nimium sua si bona norint
Agricolae." . . . VINE.

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AGRICULTURE.

AN ADDRESS,

DELIVERED BEFORE THE

New London County Agricultural Society,

At their late Anniversary Meeting, October 4th, 1819, by THOMAS S. PERKINS, Esq. Corresponding Secretary of the Society.

New London, Oct. 20, 1819.

THOMAS S. PERKINS, Esq.

Sir: In pursuance of a vote of the *New London County Agricultural Society*, the Committee of Publications present to you the thanks of the Society, for the Address delivered at their late annual meeting, and request a copy thereof for publication.

With respect, your obedient servants,

JOSEPH WILLIAMS,
NOYES BARBER,
JOSHUA B. CLAPP, } Committee.

Address, &c.

The subjects which present themselves to a mind contemplating the processes in Agriculture are various and extensive, yet it seems the imperative duty of one called upon to address an audience, like this, assembled to celebrate the first anniversary of our Agricultural Society, to lead their thoughts to a few of the objects of our association, and to the advantages which have resulted from the institution of similar ones in other nations, and in different parts of our own country. It is not necessary for us to look back to the earliest ages of the world, and view the progress of this primitive art, nor need we now attempt to discover in the wandering habits of our race the reason why this art remained stationary, while great improvements were making in other arts. We should be wasting our time in useless speculations, were we to attempt to investigate the nature of earlier processes in Agriculture, or of the implements used by the original cultivators of the soil. Neither is it important for us to know the causes why the pastoral ages have ever been recurred to by Philosophers as exhibiting that state in which mankind enjoyed the most unalloyed happiness, nor why the golden age has been represented by the poets as those years in which man was free from the corruption of our nature—such speculations are foreign to our object, are unnecessary and destitute of any advantages which we might hope to gain.

History informs us that when any nation had become exhausted by continued wars or other devastating causes, the attention of the wisest of the sovereigns has been uniformly directed to the improvement of an art upon which the prosperity and security of their respective empires de-

pend. In those early periods to which we refer, the patronage of the monarch was necessary to call forth those energies which are now excited by the spirit of emulation, and a desire for the public good. It was owing to the fostering care of Sesostris, that the fertile plains and valleys of Egypt were made to wave with rich and luxuriant harvests, and the harmonious pen of Virgil was employed by Augustus to lure back to their fields and flocks, those degenerate Romans who forgetful of the example of the fathers of their republic, sought happiness in the pleasures of that luxurious city. It is no trifling tribute to our profession, that one of the wisest of monarchs should have employed the first poet of the age to write so complete a system of Agriculture for the use of the subjects of an empire which included the then civilized world. The fact is illustrative of the ideas of that sagacious Emperor, whose whole conduct expressed his respect for the simple and unaffected manners of rural life.

Although we may read with pleasure, the works of earlier writers upon Agriculture, and admire the excellent advice with which they are filled, and the minuteness of detail into which they descend, yet we are not in this age to follow implicitly the precepts of Cato or Virgil, of Varo or Columella. The last age has furnished many facts, the results of experiments and the difference in soil, climate and crops, compels the American farmers to form for themselves a code of Agriculture, adapted to their own situation. This object ought constantly to be in the minds of the members of this Society. In order that we may derive the advantages which we hope will flow from this institution, it seems necessary that there should be some opportunity of collecting the results of the experiments which may have been attempted, and of presenting them to the public in a manner from which we can all profit.

With regard to the difference which may exist, in the soil of our own and other countries much may be said, and we be still left to conjecture. Great diversity obtains in almost every region of the world, and particular sections of the same region present different soils; but there are many reasons why the natural soil of our own country should be superior to that of most other nations. Centuries had probably passed away before our lands were subjected to that exhausting system of cultivation to which others were exposed. During the long period while they were left to rest, their fertility was constantly increased by the falling of leaves and the decay of vegetable matter, and the earth was shaded by the thick foliage of the trees which protected it from the exhausting heat of the sun. Thus the food of vegetation was constantly accumulating, and the fertility of the land continued to increase. These circumstances must have fitted

our soil for any course of cultivation which could have been adopted; and after it was settled by our ancestors, the roughness of the surface preserved much of it from severe cropping. The first settlers of our country were practical and experienced farmers: They filled it with orchards and pursued a course of agriculture which tended much to increase their own comforts and to enhance the value of their lands—but the constant wars carried on with the natives, and the French on our frontier, left their children but little opportunity to follow in the path which had been marked out. Other circumstances have also occurred, all of which have tended very much to impoverish the soil. Had a system less destructive been adhered to, we should have found our lands in a state of greater fertility. But while we lament the improvidence of those who immediately preceded us, we must not conclude that we are without resource. When reading treatises upon the agriculture of European countries, we find that it requires hundreds of loads of manure to bring an acre of land to a proper state for a crop; and we are irresistibly led to draw a conclusion in favour of our own soil, where one tenth of the quantity there used, will here ensure a large return. The great crops raised in those countries, are obtained by a system of fallowing and repeated ploughings for one crop. The greatest attention is paid to reduce the soil to an almost impalpable powder. Sir John Sinclair, in his excellent "Code of Agriculture," speaks of *six* deep ploughings in summer fallow; and in some places on the continent of Europe, such pains are taken to pulverize the soil, that it is beaten with mallets and raked with more care than American farmers bestow upon a garden. With these facts in view, let us recur to the course we ourselves pursue. Let us individually recollect whether our own rye fields have received even *three* very shallow, imperfect ploughings, and ask ourselves if we can expect large returns. That soil cannot be considered poor which with two ploughings, just stirring the surface of the ground, and leaving it filled with innumerable baulks, will return to our hands even the seed which may have been sown. We are not compelled to form reservoirs for the use of our cattle, for almost every field in every farm is watered with living streams. We have here no extensive moors or arid plains, whose sour and churlish soil never repays the labours of the husbandman, yet many thousands of acres in England, from the nature of the soil long thought incapable of cultivation, are now covered with the finest flocks and herds which the earth sustains. Where in this country shall we find barren sands too light to retain manure, and where the spot on which the rain of heaven sheds no genial influence—yet Europe presents thousands of acres, once barren as the beach which bounds our shores, now waving with rich harvests. We have

here no marshes, nor bogs, nor fens, which it would cost thousands to reclaim—yet, in Europe, a *Kingdom* has been rescued from the sea.

We have a climate, which, though it gives us the extremes of heat and cold, yields to us the advantages of more southern or more northern regions. The snows of winter and the heats of summer, each pay tribute to the industrious farmer: the one furnishes with roads and bridges to places difficult of access; gives a facility of communication with our markets; by a process unknown to us, tends to fertilize and protect the soil; and does not by its long continuance expose us to the disadvantages suffered in more northern latitudes. The other seems peculiarly necessary to the growth of our principal crop, seldom do these heats continue till nature is exhausted, and the human frame is spent; seldom do we here suffer from excessive heats, which, instead of cherishing, destroy the fruits of human industry; never do we experience the enervating influence of more southern climates—and languor is a feeling unknown to the hardy cultivators of our soil. The dryness of our atmosphere gives us great advantages. No long continued rains or fogs, render labour impossible for weeks—nor expose us in winter to sickness and untimely death, nor in summer prevent the ingathering of the fruits of the earth. The severity of the cold of winter gives energy and tone to the system—braces the body—invigorates the mind and induces those feelings of independence which dignify and exalt our race.

The peculiar climate we enjoy, has brought on a course of crops adapted to its nature. The cultivation of Indian corn, is a process not understood in many countries, in some of which the climate presents an insurmountable obstacle. We know its importance and appreciate its value. Although it is a scourging crop to the land, and deprives it of much of its fertility, yet when we reflect upon the returns it yields, we shall not doubt but that we are amply repaid for our labour and expense. When we recollect the quantity of fodder produced by one acre of Indian corn, including both the stalks and the butts, that this is, independent of the grain, and is of the first quality for the use of cattle, we must be led to attach more importance to the cultivation of this valuable plant. If we should go further and consider the uses of the grain, its nutritious qualities, and the various ways in which it can be applied, whether we use it as food for our families, or our stock—whether we use it for our swine, or carry it to market—in whatever way we apply it, we find it more valuable than any other grain except wheat, and in some respects superior to that highly esteemed plant. To us it has become necessary, and nothing could supply its place. No instance can be mentioned which indicates more inattention on the part of our farmers, than the course pursued in the cultivation of this vegetable. Nearly 200 years have elapsed since this crop has been raised by the civilized inhabitants of this country, and yet the inexperienced farmer has no authority to which he can refer, as to the best method of planting. It may be said, that we must follow the example of our neighbours, and plant as our fathers did—but custom can never sanction to any reasoning mind, the practice of planting with little or no manure; and if we may refuse credit in this in-

stance, why may we not doubt the expediency of planting it in hills? The largest crop of Indian corn of which we have any account, is stated to have been one hundred and thirty bushels to the acre. This was planted in a particular manner in rows on land very highly manured. This way of planting, together with various other methods, has often been recommended, yet it is questionable whether many of this highly respected audience ever tried the experiment. The potato, though a native of our own, has become a most important article of food in other countries, and is more extensively cultivated now, than at any former period. Our soil and climate afford us opportunities of raising most of the productions of other nations, and we have reason to believe that many plants and vegetables not now known among us, may be made sources of great wealth. In confirmation of this opinion, let us look to the ruta baga, or Russian turnip, a root, until very lately, entirely unknown among us: in the hands and under the care of enterprising and experienced farmers, it bids fair to become a useful and important article of consumption. The introduction of the turnip husbandry, forms an epoch in the history of British agriculture, and why should the American farmer be inattentive to the advantages which may be derived from the cultivation of this vegetable? The inexperienced farmer is not competent to try experiments. Few theoretical farmers have that knowledge of the detail of agriculture, which will enable them to know when they step out of the ordinary track, or possess sufficient experience to judge of the results of their own experiments, and the public are left in ignorance, if the proper steps have been taken to give a fair trial to the plant or vegetable upon which the experiment has been attempted, and the fear of ridicule operates so powerfully, that many are deterred from any attempts. In addition to this, no accounts are presented to the public. All we are able to learn is, that the cultivation of such a plant, or grass, or vegetable, has been attempted, but did not succeed. If our farmers would feel that it is honourable to have attempted to benefit the community, and would communicate to the public, the detail of these experiments, we might then judge if no step has been accidentally omitted, and whether the nature of the soil, exposure, mode of treatment, &c. correspond with those recommended by the writer whose advice they endeavour to follow. Let those who understand the mode of farming now practised, and who know the advantages which are said to result from a different course, step out of the beaten path, and fairly try, if no other plan can be devised more profitable than that now pursued—if no mode can be discovered which will increase our crops and diminish the expense; and then let them state the method they have adopted, and the results they have obtained; thus we should have facts from which an opinion could be drawn, and the young and inexperienced will not be left to conjecture what might be the success of their own attempts.

But this class of farmers is not the only one which we hope will be benefited by this institution. Wherever we turn our attention, to consider the effects of associations and societies, for the improvement of agriculture, we find that not one part only, but the whole community have

been gainers. We will not go abroad for proof—we will not refer to the reports of the French Professors, nor to those of the German Universities—nor to the labours of the British National Board of Agriculture, to show the advantages of such institutions, but we will confine ourselves to our own country. We discover these effects in the state of Massachusetts, particularly in the neighbourhood of Brighton, and in the county of Berkshire; within our own state, in the counties of Hartford and Windham. These societies, though recently established, have been so very advantageous, that the change is seen by the passing traveller. Two or three years have made an alteration in the appearance of the farms and stock, which the most sanguine well wishers to the country could not have anticipated. But the most important change is exhibited in the Barnyard. The article of manure had been almost entirely neglected; and it is supposed, that during the present season, three times the quantity is made which four years ago was collected in those counties. The pride and ambition of the farming interest has been excited, and this excitement has increased as it has been found that the care and attention which has been bestowed upon the soil has been amply repaid. But may we not hope that the effects of this, our own infant association, at even this early period, are to be discovered? Is it fancy, or is more attention paid to collecting manure? Is not more care observed in the selection of stock? And although we have suffered from an unexampled and disastrous drought, have we not reason to congratulate ourselves on the advantages we have already experienced, yet much remains to be done—we do not expect to change the appearance of our farms by any kind of enchantment, but hope by a steady course of industrious devotedness to the object proposed, to obtain the desired result. First of all, then, let us apply ourselves to the collection of manure. If there is magic in farming, it is here its effects are to be discovered. The barn yard is the only source which is now resorted to, and its operations are conducted on a very limited scale. Sufficient care is not taken to add to the quantity, and even our most enterprising agriculturists much neglect this indispensable assistant. The word "*manure*" includes all those substances which are known either to enrich the different soils, or to contribute by any other means to render them more favourable to vegetation." Time would fail us if we were to attempt to speak of this subject as it deserves. Of the kinds now used, it is unnecessary to do more than to suggest to the observing farmer; whether the quantity might not be increased—whether it would not be advantageous to notice more particularly the kinds of soil on which it is to be applied, and whether beneficial effects would not result from a more minute attention to the effects produced.

There is another class of manures, with which we are less acquainted, including lime in its various states, chalk, marle, and ashes. These have been so expensive and difficult to obtain, that they are but little used, though they are of great value. It is but a few years, since these were thought by the English farmers to be pernicious, operating to stimulate the land to an unnatural and destructive effort—that though one or two extraordinary crops might be obtained, yet that

the soil becomes exhausted. But the investigations of the British board of agriculture, have shown that this opinion was erroneous. Great light has been thrown upon this part of our ar by the experiments of the enterprising agriculturists of that kingdom. They have proved that though this class of manures are highly stimulating, yet by a judicious rotation of crops subsequent to the application, the value of land has risen five or six fold, and that the soil still increases in value and fertility. Its operation seems to consist in preparing the crude and insoluble parts of the soil to become food for plants, improving the texture of the soil, and giving it additional power to attract and retain moisture. Ashes has been mentioned as one of this class, and is at the hand of every farmer in this country—it is painful to see how much it is neglected. In the neighbourhood of many houses, we see the heaps of ashes which have been left till overgrown with weeds they are entirely lost. We may form some idea of the value of this article, when we see the enterprising farmers of Long Island, purchasing it of the soap manufacturers in our own vicinity, carrying it to the island, and then carting it six or eight miles into the country, so that when spread upon the land, it costs them little less than forty cents per bushel.

Their practice declares that this is the cheapest manure they can obtain. But we have resources, on almost every farm for obtaining this article at much less expense. The mud of swamp-holes and peat bogs, with any kinds of earth piled up with roots, stumps and old wood, are at our hands, and let us no longer neglect them.

Composts are of great value for top dressing for our mowing lots. A little lime to commence the fermentation, mixed with weeds, bog grass, turf, &c. &c. are all that is necessary, and this application, it is affirmed, will more than pay all the expense by the additional produce of the first year, while its effects will be seen for the four following seasons. Why then should we hesitate to adopt such a course of farming as will give us an opportunity of improving our pasture lands, enabling us to increase our stock, enlarge our dairies, and thus add to our annual profits.

To direct the attention of our fellow citizens to the most important of arts—to that art upon which their existence depends—to lead them to a knowledge in detail of the processes of agriculture; to communicate to each other the improvements which may be introduced, and the discoveries which may be made to strengthen the bonds of fellowship and good will; to cheer our leisure hours by the pleasures of social intercourse; to lighten our necessary toil by the charms of friendship; to infuse into the minds of the rising generation, that attachment to these natural pursuits which will enable them to be useful to themselves, and valuable members of society; and to lead them to estimate correctly the high respectability of the honourable employment of the farmer—these are but a few of the advantages which we hope to gain.

It is unnecessary to attempt to impress upon the members of this society the indispensable virtues of our profession without which nothing can be obtained. Industry, economy and perseverance, are peculiarly important to us. By

practising these, assisted by the blessings of Heaven, a wilderness may be made to blossom as the rose, and let us be ever mindful, that without this assistance, even the garden of Eden would become a desolate waste.

OFFICERS OF THE SOCIETY.

At the annual meeting of the New London County Agricultural Society, held at New London, on the 4th of October, A. D. 1819, the following officers were chosen for the ensuing year, viz:

ELIAS PERKINS, President.
LODOWICK FOSDICK, Recording Sec'y.
CALVIN GODDARD, 1st Vice-President.
MOSES WARREN, 2d Vice-President.
PAUL BABCOCK, 3d Vice-President.
RALPH HURLBUT, 4th Vice-President.
ASA FITCH, 5th Vice-President.
THOMAS S. PERKINS, Cor. Secretary.
LUTHER SPALDING, Treasurer.
CHARLES P. HUNTINGTON, Auditor.
JOSEPH WILLIAMS, } Committee of
NOYES BARBER, } Publications.
JOSHUA B. CLAPP, }
SAMUEL CHANEY, New London, } Seeds-
EPEPHRAS PORTER, Norwich, } men.

AWARDING COMMITTEES.

On the cultivation and improvement of Lands.
William Williams, of Stonington, Chairman;
George Williams, of Waterford; Artemas Worthington, of Colchester; Joshua Huntington, of Norwich; Robert S. Avery, of Preston.

On the quantity and quality of Produce.
James Mitchel, of Groton, Chairman; Benajah Gardiner, of Waterford; William Lester, of Norwich; Henry Perkins, of Salem; Perez Hewet, of North Stonington.

On Domestic Animals.
Elisha Ayer, of Groton, Chairman; Benjamin Brown, of New London; Ralph Ishman, of Colchester; William Raymond, of Montville; Amasa Hyde, of Franklin.

On Household Manufactures.
Christopher Manwaring, of New London, Chairman; David Deming, of Colchester; Dwight Ripley, of Norwich; Elisha Avery, of Groton; Jesse Dean, of Stonington.

TOWN COMMITTEES

New London. Christopher Manwaring, Benjamin Browne, Isaac Thompson, Joseph Smith, Ebenezer Way.

Norwich. William Lester, Eber Baccus, Newcomb Kinney, Joshua Huntington, John Hyde.

Preston. Robert S. Avery, Nathaniel Kimball, Isaac Avery, James Cook, Adin Cook.

Stonington. Samuel F. Denison, William Williams, Enoch Burrows, William Randall, Amos Denison.

Groton. James Mitchell, Stephen Haley, Elisha Ayer, Adam Larabee, Peter Avery.

Colchester. Benjamin Trumbull, John R. Watrous, Ralph Isham, Artemas Worthington, David Deming.

Lyme. Enoch Lord, Elisha North, Charles Smith, Joseph Chadwick, Matthew Griswold.

North Stonington. Peris Hewit, Joseph Ayer, Elias Hewit, Daniel Packer, Elias Smith.

Bozrah. Gardner Avery, Elijah Huntington Ezra Lathrop.

Montville. Mulford Raymond, Daniel F. Raymond, Asael Otis, William Raymond, John Noyes.

Franklin. Darius Frink, Amasa Hyde, Comfort D. Fillmore, Jason W. Kingsley, John Armstrong.

Waterford. Benajah Gardiner, Charles Avery, William Moore 4th, William Champion, Ebenezer Holt.

Lisban. Frederick Perkins, Freeman Tracy, Tyler Brown, Andrew Clark, Charles Perkins.

Griswold. Elisa I. Abel, Horatio Waldo, Alexander Stewart, jr., Welcome Browning, Christopher Avery.

Salem. Henry Perkins, Vine Stoddard, Matthew Turner, Ebenezer A. Packer, John S. Ransom.

ON THE

Management of Fruit Trees.

[The following directions for the management of Fruit Trees, in every stage of their growth, will be found satisfactory.—They are from Marshall's Rural Economy.]

A seed bed and nursery ground should be kept perfectly clean, and be double-dug, from a foot to eighteen inches deep. The seedling plants ought to be sorted agreeably to the strength of their roots, that they may rise evenly together. In transplanting, the tap or bottom root should be taken off, and at the same time, the longer side rootlets should be shortened. The young plants should then be set, in rows, three feet apart, and from fifteen to eighteen inches asunder in the rows; care being taken not to cramp the roots, but to bed them evenly and horizontally among the mould. In strictness of management they ought, two years previous to their being transferred to the orchard, to be retransplanted into unmanured double-dug ground, four feet every way apart, in order that the feeding fibres may be brought so near the stem, that they may be removed with it into the orchard, instead of being as they generally are left behind in the nursery. Hence in this second transplantation as in the first, the branches of the root should not be left too long; but ought to be shortened, in such a manner, as to induce them to form a regular globular root; sufficiently small to be removed with their plant; yet sufficiently large to give it firmness and vigour in the plantation.

If the raising or improving of varieties be the object in view, the nursery ground should be naturally deep and well soiled, and highly manured; and the plants repeatedly moved at every second, third, or fourth year, that they may luxuriate not only in rich but in fresh pasturage; thereby doing perhaps all that art can do, in this stage of improvement, toward giving freedom to the sap vessels, and size and richness to the fruit.

The intervals may, while the plants are small, be cropped with such kitchen garden produce as will not crowd or over-shadow the plants; the rows being kept perfectly free from weeds.

In pruning the plants, the leading shoot should be particularly attended to. If it shoot double, the weaker of the contending branches should be taken off. If the leader be lost and not easily recoverable, the plant should be cut down to within a hand's breadth of the soil, and a fresh stem trained. Next to the leader the stem boughs require attention. The undermost boughs should be taken off by degrees; going over the plants every winter; always cautiously preserving sufficient heads to draw up the sap; thereby giving strength to the stems and vigour to the roots and branches: not trimming them up to naked stems as in the common practice; thereby drawing them up prematurely tall and feeble in the lower part of the stems. The thickness of the stem

ought to be in proportion to its height, a tall stock therefore requires to remain longer in the nursery than a low one.

Best method of Planting in the Orchard.

Describe a circle about five or six feet diameter for the hole. If the ground be in grass, remove the sward in shallow spits, placing the sods on one side of the hole. The best of the loose mould placed by itself on another side: and the dead earth, from the bottom of the hole in a third heap.

The depth of the holes should be regulated by the nature of the sub-soil. Where this is cold and retentive, the holes should not be made much deeper than the cultivated soil. To go lower, is to form a receptacle for water, which by standing among the roots, is very injurious to the plants. On the contrary, in a dry light soil, the holes should be made considerably deeper; as well to obtain a degree of coolness and moisture, as to be able to establish the plants firmly in the soil. In soils of a middle quality, the hole should be of such depth, that when the sods are thrown to the bottom of it, the plants will stand at the same depth in the orchard, as it did in the nursery. Each hole therefore, should be of a depth adapted to the particular root planted in it. The holes ought, however for various reasons, to be made previous to the day of planting. If the season of planting be spring, and the ground and the weather be dry, the holes should be watered, the evening before the day of planting, by throwing two or three pailfuls of water into each; a new but eligible practice.

In planting, the sods should be thrown to the bottom of the hole, chopt with the spade, and covered with some of the finest of the mould. If the hole be so deep, that with this advantage, the bottom will not be raised high enough for the plant, some of the worst of the mould should be returned, before the sod be thrown down.

The bottom of the hole being raised to a proper height and adjusted, the lowest tire of roots are to be spread upon it; drawing them out horizontally and spreading them in different directions, drawing out with the hand the rootlets and fibres which severally belong to them; spreading them out as a feather; pressing them evenly into the soil, and covering them, by hand, with some of the finest of the mould; the other tires of roots are then to be spread out and bedded in a similar manner. Great care is to be taken to work the mould well in, by hand, that no hollowness be left. To prevent which, the mould is to be trodden hard with the foot. The remainder of the mould should be raised into a hillock, round the stem, for the triple use of affording coolness, moisture and stability to the plant. A little dish should be made on the top of the hillock, and from the rim of this, the slope should be gentle to the circumference of the hole, where the broken ground should sink some few inches below the level of the orchard. All this detail may be deemed necessary; by those, I mean, who have been accustomed to bury the roots of plants in the grave digger's manner; but I can recommend every part of it to those, who wish to ensure success, from my own practice.

Plants which have been transplanted in the manner here recommended, whose heads have been judiciously lessened, and which have been planted in the manner here described, seldom require any other stay than their own roots. If, however, the stems be tall, and the roots few and short, they should be supported in the usual manner with stakes, or, rather in the following manner, which is at once simple, strong, and most agreeable to the eye. Take a large post and slit it with a saw, and place the parts flat way, with the faces to the plant, one on each side of it, and two feet apart, and nail your rails upon the edges of the posts.

There are two ways of grafting. One is upon the stock, after two, three, or four years growth in the nursery. The manner is—to cut the entire head of the stock off, and then to make a cleft in the top and insert the scions in it, covering up the whole

crown afterwards with a composition. But this method is attended with this disadvantage, that should one of the grafts not take, two are usually inserted, one on each side, the cleft remains open, after the composition falls off; and thus the cavity at the top on one side, not being filled up with new wood, becomes a receptacle for moisture and is very apt to decay.

The other method, and the best, is to let the stock remain until large enough to be grafted on the boughs, namely, until the trained boughs be about an inch in diameter.

By taking a view of the natural enemies of fruit trees, we shall be better able to judge of the art requisite to their preservation.

The enemies of fruit trees, are, a redundancy of wood; moss; spring frosts; blights; insects; an excess of fruit; old age.

Some of them are beyond human reach; but most of them are within the control of art.

A redundancy of wood is the cause of numerous evils. The roots, or rather the pasturage which supports them, is exhausted unprofitably; the bearing wood robbed of part of its sustenance, and the natural life of the tree unnecessarily shortened, while the superfluous wood, which is the cause of this mischief, places the tree in perpetual danger by giving the winds additional power over it; and is injurious to the bearing wood, by retaining the damps, and preventing a due circulation of air.

The underhanging boughs weigh down, especially when loaded with leaves, the fruit bearing branches they are preying upon, giving them a drooping habit or at least preventing their taking, as they ought, and otherwise would, an ascending direction. While those, which grow within the head, are equally injurious in crossing and chafing the profitable branches.

The outer surface only is able to mature fruit properly. Every inward and every underling branch ought therefore to be removed. It is no uncommon sight to see two or three tires of boughs pressing down hard, one upon another: with their twigs so intimately interwoven, that even when their leaves are off, a small bird, can scarcely creep in among them. Trees thus neglected, acquire, through a want of ventilation and exercise, a runty, stunted habit, and the fruit they bear, becomes of a crude inferior quality.

The great object of the fruit farmer is, to produce a crop every year; and nothing is more likely to obtain it than keeping the trees in perfect health, and endeavouring to prevent their bearing beyond their strength, in a general fruit year.

Moss is chiefly, perhaps, owing to the nature of the soil, and cannot be altogether prevented; but it may, in most cases, be checked, and its evil effects in a great measure avoided. I have seen several orchards in which the trees were almost entirely subdued by this vegetable vermin. Some of the trees, with, perhaps, only one bough left alive, and others entirely killed, and yet suffered to remain an incumbrance to the ground and a disgrace to the country. What avails the number of trees, if they are not productive? How absurd then to spare any reasonable expense to preserve them in a state of health and productiveness; or to suffer those to encumber the soil, which are past recovery.

Spring frosts are an enemy against which, perhaps it is most difficult to guard orchard trees. Dry frosts are observed to have no other effect than keeping the blossoms back; consequently are frequently serviceable to fruit trees. But wet frosts, namely, frosts after rain or a foggy air, and before the trees have had time to dry, are very injurious to the buds. An instance is mentioned, in which a flying hazy shower in the evening was succeeded by a smart frost; that side of the tree against which the haze drove, was entirely cut off; while that side of the tree which escaped the moisture escaped the effect of the frost.

Much however may depend on the strength of the blossoms. The spring of the year, 1788, had its

frosts and all hopes of fruit trees were more than once given up; yet for quantity or quality taken conjointly, there has perhaps, seldom been so good a fruit year. But this year, the buds formed, and the blossoms broke forth with unusual vigour, and were enabled, by their own strength, to set common enemies at defiance. On the contrary, in the succeeding spring, the blossoms sickened in the bud, the consequence was, that scarcely an apple succeeded.

The assistance, therefore, required from art, in this case, is, by keeping the trees in a healthful vigorous state, to enable them to throw out a strength of bud and blossom; and by keeping them thin of wood, to give them an opportunity of drying quickly, before the frost sets in.

The term blight is of vague signification. Black blighting winds are talked of every where, but no definite idea is any where affixed to the expression. That corn and fruit become unproductive, without any visible cause, and that fruit trees are liable to be infected with insects, are certainly facts. But whether insects be the cause or the effect of blights does not appear to be yet settled.

With respect to blights, all the assistance, which art can render, is to keep the trees in a state of healthfulness, and prevent as much as possible an excess of fruit. As old age can not be prevented, we have only to consider how the productiveness of trees may be protracted. I have seen healthy bearing apple trees, which now wear their second top. The first tops being worn out were cut off, and the stumps saw-grafted. Sometimes we see trees so far gone in decay, that their productiveness no longer repays their encumbrance of the soil! How injudicious in such case is the conduct of the proprietor, who permits such trees to remain year after year imbibing and wasting the substance of his soil!

Public Schools.

The following Report was submitted to the Senate of Maryland, on the first inst by Mr. MAXCY, in consonance with the Governor's Message to the legislature.

The committee to whom was referred so much of the governor's message, as relates to education and public instruction, have had the same under consideration, and beg leave to report—

That, at an early period after the settlement of the state, the promotion of useful learning was deemed an object highly worthy of the attention of the legislature. At a session of assembly, at the city of St. Mary's, in the year sixteen hundred and ninety-two, an act was passed for its encouragement. In sixteen hundred and ninety-six, the free School of King William, was established at Annapolis; and in seventeen hundred and twenty-three, a school was erected in each of the twelve counties, into which the state was then divided, and the funds provided by previous acts for the support of county schools, were distributed equally amongst them.—By various other acts, schools have been established in each of the seven counties subsequently formed, and most of them have enjoyed at different times, a portion of legislative favour and encouragement.

Many of the schools are now in a flourishing condition. In some instances it has been found expedient to unite the schools of two or more adjacent counties: their revenue derived from the public bounty and private patronage being insufficient for their separate support. But the funds of some, your committee regret to say, have been diverted from their original object, and applied to purposes entirely foreign to the education of youth, and the advancement of useful knowledge.

In most of these schools, besides reading, writing and common arithmetic, are taught English grammar, geography, the higher branches of arithmetic, and the latin and Greek languages. With moderate additional assistance from the state, these schools might be made highly respectable academies, or seminaries of learning of the second grade, and with the addition of one or two others, conveniently

located and properly endowed, would from a sufficient number of institutions of this class for the accommodation of the state.

Your committee begs leave further to report, that in seventeen hundred and eighty two, a college or place of universal learning was established on the eastern shore, under the name of the Washington College; and in the year seventeen hundred and eighty four, another under the name of St. John's College, was established on the western shore—Both were liberally endowed by the general assembly, and united under the name of the University of Maryland. While they continued to enjoy the patronage of the state, they were flourishing and highly respectable. They have been particularly fortunate, in sending forth into the world, many of our most virtuous, able and celebrated men, who have been in their various stations at once the ornaments and support of the state. The funds however, were many years since withdrawn from their institutions, which afterwards languished for a while for want of support, and at length settled down from seminaries of the first class to respectable academies or schools of the second grade. Our youths of talent, who have the means of defraying the expense, are now obliged to resort to other states for the completion of their education; while, such as cannot afford it, whatever may be their natural endowments, are compelled to be satisfied with limited advantages afforded by our grammar schools. While many therefore of our most promising youths, for the want of means, are obliged to forego the benefit of a complete course of collegiate study, others more favoured by fortune, carry more wealth out of Maryland, for the purposes of education in other states, than would be necessary for the most liberal endowment of a university upon the largest scale, which would be accessible to treble their numbers. It is therefore manifest, that while this parsimony in relation to our colleges is totally distinct from true economy, it has diminished throughout our counties, in a lamentable degree, the number of those who would otherwise have been qualified, by their knowledge, their talents and their virtue, to be the intelligent and trust-worthy guardians of the people's rights.

While for these reasons therefore, your committee look back with deep regret upon the policy, that has been pursued in relation to our colleges, they lament it still more on other accounts. It has rendered a system of general education of the people in a great measure impracticable. It has injured, it is true, that class in the community, whose means would have enabled them to give their children the advantages of a learned education, but it has injured still more, though not so directly, and therefore not so manifestly, that portion of our community, who must have the means of instruction brought home to them, or be compelled to bring up their children in ignorance. A general system of elementary schools, that would have brought knowledge to every poor man's door, has been from the first settlement of the state, considered an object of the first moment. And, indeed, in a government formed upon the broad basis of universal suffrage, what object can appear of greater magnitude to the sound mind of a reflecting and experienced statesman?—If the elements of society be dark and confused, without any prevailing principle to hold them together or direct their motion, what but disorder can ensue? Knowledge must enlighten and reduce the chaos to order, before liberty can be stable, or virtue secure.

The only means, by which this knowledge can be effectually diffused throughout the mass of society, are common schools, established in every part of the country. You may create those schools however, by law, and establish a fund for their support, but your work is useless and of no avail, unless you first provide competent and suitable teachers.—These are not to be had in our state, and are only to be supplied by academies and colleges. The policy, which destroys the superior institutions of learning, therefore, is fatal to the primary schools. The poorer classes of the community are even more in-

terested in the establishment and endowment of colleges and grammar schools within our state, than the rich; because the latter can procure teachers for their children at home, or can send them abroad for their education; while on the other hand, the children of the poor must rely for their education upon the primary schools located near them, and such schools cannot be had, until a competent supply of teachers can be furnished by seminaries of a higher order.

Your committee are therefore of opinion, that the permanent welfare and true interest of the state, call loudly for the establishment of one seminary of learning of the highest class, where the highest branches of literature and science may be taught, and where a number of poor young men, selected for peculiar genius from the academies, may be educated at the public expense, and who may be required, in consideration of the benefits derived by them from the public, to become teachers in the academies or seminaries of the second grade.

Your committee also most earnestly recommend a continuance of the fostering care of the government to such academies as at present derive assistance from the public, and the establishment of such additional institutions of this class, as may be found necessary for the accommodation of all parts of the state. In each of these academies provisions ought to be made for the education of a certain number of boys, who may be selected from the primary or common schools for their peculiar merit, out of those who have not the means of defraying the expense of a more complete education, and who in return may be required to become teachers, for a certain time, in the primary or common schools.

Your committee beg leave further to report, that they deem it a matter of the first importance, that common schools should be established in every neighbourhood throughout the state, in which the children of such persons, as cannot pay for it, may receive instruction at the public expense, for a term of three years. The best mode of contributing the public aid to schools of this class, in the opinion of your committee, would be to provide by law, that whenever a neighborhood shall have erected a school house, and collect a certain number of pay scholars, a part of the salary of a teacher shall be paid from the treasury of the state, on condition of the master engaging to instruct gratis the children of such poor persons, as shall be ascertained to be unable to pay therefor.—This plan, which makes individual exertions a pre-requisite to public patronage, offers the best evidence of zeal, and pledges for fidelity, in administering the funds, which the schools may derive from the state.

Your committee are fully aware, that while the present pecuniary embarrassments of the country continue, it would not be proper to impose any burden upon the people of the state for the immediate attainment of these important objects; but they have thought it their duty to call your attention, and that of the public, to this outline of a system, which provides plain but useful educations for all the poor, and for the advancement of such of them as are found to be possessed of extraordinary talents, and at the same time affords an opportunity to our youth, in all situations in life, to be educated in their native state. A system which if matured by further reflection and carried faithfully into execution, would, they have no doubt, be productive of results most important to the prosperity, the character, the dignity and happiness of the state, and essential to the permanency and stability of republican institutions. But while they are fully sensible, that this is not the time to expect any further appropriations to literary purposes out of the funds of the state, they beg leave to call your particular attention to a subject of the first moment, not only to Maryland but to all the original states of the Union.

The public lands, though located in the west and south, are the common property of all the United States. Each state has an equal right to a participation, in a just proportion, of that great fund of national wealth. By laws passed by congress at different

periods, one thirty sixth part of those lands are set apart for the endowment and support of common schools in the states and territories that have been and shall hereafter be formed out of them; and many or whole townships, containing 23,040 acres each, are appropriated for the support of seminaries of learning of a higher class. Your committee can discern no reason, why the people who have already settled in, or who may hereafter remove to those states and territories which have been formed out of these public lands, should enjoy any peculiar and extraordinary advantages from this common property not possessed by those who remain in the original states. They are far from censuring that enlightened policy which governed congress in making the liberal appropriations just above-mentioned for the encouragement of learning in the new states and territories. They, on the contrary, most heartily applaud it. But they at the same time, are of opinion, that the people of the original states of this union, by whose common sword and purse those lands have been acquired, are entitled, upon principles of the strictest justice, to like appropriations for the support and endowments of literary institutions within their own limits.

Your committee therefore recommend the adoption of the following resolutions:

Resolved by the general assembly of Maryland,—That, each of the United States, having an equal right to a participation in that great fund of national wealth, the public lands, the original states of the union are entitled to appropriations of land for the support and encouragement of learning and literary institutions within their limits, corresponding, in a just proportion with those which have been made, for the same purposes, within the limits of the new states and territories.

Resolved, That our senators and representatives in congress, be requested to use their exertions to procure the passage of an act, to carry into effect the just principle set forth in the foregoing resolution.

Resolved, That the governor of this state be requested to transmit copies of the foregoing resolutions to each of our senators and representatives in congress, and also to the governors of the several states of the union, with a request that they will lay the same before the legislatures thereof, and solicit their co-operation in obtaining the object of these resolutions.

FROM A BOSTON CORRESPONDENT.

The writer will be obliged if the Editors of the National Intelligencer will insert the following. He has had some concern in manufactures, but is, from principle, opposed to any exclusive privileges.

I have just perused, with great pleasure and interest, the excellent memorial presented to Congress by the Delegates of the several Agricultural Societies in Virginia, and which, for plain manly feelings, sound reasoning, and a correct knowledge of the true interest of the people of the U. States, is, in the opinion of the writer, a very superior, if not unequalled performance. That the great body of consumers in this country should be taxed for the benefit of comparatively a few individuals, is so manifestly unjust, that it cannot but excite the indignation of every disinterested person. As the memorialists well observe, the calamities we labour under, arising from circumstances far beyond legislative control, cannot be corrected by legislative wisdom; they must be left to cure themselves, and will certainly do so, if Government, instead of increasing the existing duties, reduce them as suggested by the memorialists, so that the great articles of import may be within the reach of the consumers. Since the year 1816, it is presumed the consumption of foreign goods has been continually de-

creasing, and is so now, evidently. This state of affairs has caused a loss to the importers, (who, as is well known, when imported articles pay a profit, obtain an advance on the duties or long price; so also, when imported articles are sold at a loss, the importer loses on the duties or long price.) These importers have paid duties to government, for which they have not got an equivalent of the consumer; and, hence, Government has probably derived a large revenue from mercantile capital. In ordinary times, this cannot happen, because the importer adds the duty to his price; but, in such times as we have had for three years past, it is plain to the writer, that such portion of loss as has accrued to the importer of foreign goods, has been paid to the Government from his own capital; that is, if the importation loses 25 per cent. the importer obtains of the consumer only 75 per cent. of the duties, and loses the other 25 per cent. himself. The experience of twenty-five years enables me to affirm, with some confidence, that the axiom, that the consumer pays the foreign duty, is true only of a regular trade, when the importation is about equal to the consumption, especially if the duties are very high. If there is a great profit on imported goods, the consumer pays the duty and a profit on the duty; if a great loss, the importer loses the per centage on the duty. The duties are too high in the United States; the effect will be to check consumption, or encourage smuggling hereafter. At present there is no inducement for the latter, but the former will take place more and more. The great mass of people always live within their means, and though individuals are extravagant, the people never are. A moderate duty of ten or 15 per cent. on imported articles would probably, in a few years, produce as great if not a greater revenue, than the present high duties. I remembered many years ago seeing a statement that the Government of Great Britain derived more revenue from the duty on Port Wine, after having made an important reduction in the duty, than they did under the high duty before existing. It is a great error in our Government to tax the wines and brandies of those countries whom we supply with grain, flour, rice, fish, tobacco, lumber, &c. so high. For instance the island of Madeira, can only pay in wine, for our flour, rice, corn, &c. This (though an article of luxury in Europe,) ought to be admitted at a very low rate of duty, in order to encourage our own agriculture. The high duty on Lisbon, Sherry, and Port wines have banished them from our tables; whereas, these wines should be admitted at a low duty, as being taken in exchange for the produce of our soil and fisheries. The same may be said of colonial produce which is the only medium of payment the Colonies have for our grain, rice, tobacco, lumber, and indeed, almost every article of export. On the other hand, the produce of the East Indies, being paid for in specie, and not in our own produce, ought to pay much higher duties.

If it be said that Government want revenue, and cannot reduce the duties, it may be answered, that it is much easier for the people to pay light taxes, in order to discharge the interest of the public debt, rather than reduce the value of property generally, by extraordinary exertion in Government to raise money. Besides the du-

ties are light, consumption will increase. High duties make the produce of our soil high, if the dutiable articles are consumed, if they are not consumed, and produce is low, then the people are impoverished, and cannot aid Government.

To return to the subject of manufactures; one fact is worth a thousand theories. Will any one deny that the cotton manufactures of Rhode Island, (where, I believe, they first commenced,) were ever in a more flourishing situation, or more profitable to the owners, than from about the year 1798 to 1806; the very period when the commerce of the United States was most flourishing. Possibly the accidental benefit of the war might for a short time have led to greater profits; but this was only temporary. At the above period, the duty on foreign imported articles was very moderate, and yet they succeeded—so they will now—without any governmental encouragement, as soon as our affairs return to their former level. The consumers will buy where they are able, not because they are home made, but because they are cheaper and better than imported goods. One more remark on this subject, and I close: that his, if the various manufacturers could succeed in excluding all foreign manufactures from this country, it is plain, all those concerned or connected in transporting, importing, vending, and distributing them, would have no means to buy domestic manufactures.

It may be added, as a well known fact, that the manufacture of shoes in Massachusetts, which began about 1788 or 1789, grew up into a most important branch of domestic manufacture, long before it received any encouragement by high duties. So also the manufactures of hats, nails, cast iron, and window glass, have established themselves, and that successfully, without extraneous aid, because the natural circumstances of the country have favoured their birth and progress.

The legislators of all countries ought to recollect, that trade consists in the exchange of articles we do not fancy, for those we do. It is not founded on the necessity of man, but his desires. No one country is necessary to another. All are provided by the bountiful author of nature, with the necessities of life. It is impossible for trade to flourish, or even exist long, if we determine to sell only, and buy nothing. But, with a liberal system, which is peculiarly adapted to our country, of buying of our customers, as well as selling to them, the Agriculture of the United States, (the only true basis of national prosperity and happiness,) cannot fail to flourish and encrease, and with it, its handmaids, trade, manufactures, and the mechanic arts.

A BOSTON MERCHANT.

FROM THE PLOUGH BOY.

The following article, from the pen of *Timothy Pickering*, is gratefully received, and promptly inserted. Mr. Pickering, after sustaining the highest office in the gift of the federal government, has retired to cultivate the earth; not to enjoy ease with dignity, or *otium cum dignitate*, as the ancients used to say; but to labour with his hands on that soil, which, as one of the veterans of the revolution, he fought to make free.

Though there be not ease, there is indeed, true dignity in this condition of a man who has

made so conspicuous a figure in the annals of his country. But our aim in this brief introduction is, to suggest to other gentlemen of intelligence and science, who cultivate the ground as Mr. Pickering does, that we should be equally obliged to them, if now and then, they would afford us a communication on any subject connected with husbandry and rural affairs. It may not be amiss to add, that we think there is a great propriety, on such occasions, in affixing the real signature of the writer, as Mr. P. has done, especially when facts are stated, for which it is interesting to the reader to know who is responsible.

MR. SOUTHWICK,

The learned author of the Treatise on Agriculture, in Section XI. published in your paper No. 36, discoursing on grasses, mentions *Timothy*; and says that "in Europe it is called *Herd-grass*, cat's-tail, or *phleum pratense*, its botanical name; but as the plant is of Yankee origin, we have chosen to retain the Yankee denomination." Dr. Elliot of Connecticut, who in the last century, wrote several essays on field-husbandry, in his third essay, printed in 1751, says, "There are two sorts of grass, which are natives of the country, which I should recommend; these are *Herd-Grass*, (known in Pennsylvania by the name of *Timothy Grass*;) the other is *Fowl Meadow*, sometimes called *Duck Grass*, and sometimes *Swamp-wire-grass*. It is said that *Herd-Grass* was first found in a swamp in Piscataqua, (Portsmouth, New-Hampshire) by one *Herd*, who propagated the same." It is a fact, that it is now known among the farmers, generally in Massachusetts, and I believe throughout New England, only by the name of *Herd's grass*. From New London, I have supposed the seed was carried to Pennsylvania, and there or in the three lower counties, now the state of Delaware, being cultivated by a person whose surname was *Timothy*, the grass received his name; and under that name was sent from Philadelphia to England. In such English books on agriculture, as have fallen in my way, it is uniformly called *Timothy* or *Cats-tail*. The last name is very proper, the shape of the head resembling a cat's tail, being biggest at its base, and tapering regularly to its top. With the like propriety, the meadow-fox tail grass has obtained its name; its head smaller at its base, swells thence towards its middle, and tapers to its top—like a fox's tail.

The *Fowl Meadow-grass* mentioned by Dr. Elliot, appears to be a species of *Fiorin*, (*agrostis stolonifera*;) for, says the Doctor in his fourth essay, "In a former essay I mentioned the strange and peculiar properties of *Fowl-Meadow grass*, that it will hold out to be in season for cutting, from the beginning of July till some time in October. This I wondered at; but viewing some of it attentively, I think I have found the reason of it. When it is grown about three feet high, it then falls down, but does not rot like other grass when lodged. In a little time after it is thus fallen down, at every joint it puts forth a new branch: Now to maintain the young brood of suckers, there must be a plentiful course of sap conveyed through the main stem, or straw; by which means the grass is kept green, and fit for mowing, all this long period." The Doctor adds, "whether this young growth from the joints be owing to the horizontal position of the

straw, or whether it is a confirmation of that doctrine, that the joints of plants are seed vessels, I leave to naturalists to determine."—The celebrated Fiorin, first cultivated and recommended by Dr. Richardson in Ireland, and now, there and in Great Britain, admitted to deserve the exalted character he ascribed to it; he says is in its best condition for mowing, for hay, in the month of October. Perhaps its great value, above all other grasses, for low and rich ground, might have been ascertained in the United States, if we had obtained the kind cultivated by Dr. Richardson—the broad leaved fiorin—*Agrostis stolonifera latifolia*.—He says that botanists speak of forty sorts, his attention was confined to one of them.

T PICKERING.

Wenham, Mass. Feb. 11, 1820.

FOR THE AMERICAN FARMER.

Shrubbery, Balt. County. Feb. 27, 1820.

MR. SKINNER,—I do not wonder at Mr. Pickering, vindicating the character of an article, that forms so large a portion of the product of Massachusetts, as the potato; and I will do him the justice to say, that he has given us some useful hints.—One in particular merits our immediate attention.

I mean where he informs us that his best early potatoes were produced from seed (Tubers) carried from this state. No intelligent agriculturist can doubt for a moment, the superiority of a cool northern climate in producing good Irish potatoes; nor of a southern warm climate in affording the best sweet potatoes. And though distinct in genera, it is somewhat remarkable in the providence of things, that exactly where the former become indifferent, the latter begin to be good.

I have never touched a New England potato for seed, though I have been grievously disappointed in using the genuine Hybernian—these will require many years to naturalize them.—Nevertheless, I have been well informed, that the imported Franke Braw, (in English, white and mealy) have been cultivated at Berkly, in Virginia, with advantage, and are the finest potato in that state. I wish you could obtain a few from some of your correspondents in that quarter.

It is certainly a principle both in vegetables and animals, to deteriorate, when moved from better to worse, and vice versa, and I have often remarked the great difference in young trees taken from forcing nurseries, and those taken from common soil.—The former though placed in very good ground, would make a stand for a year or two, and often mildew, whilst the latter would instantly begin to thrive and grow with a polish peculiar to health and vigour.

But with all the credit due to Mr. Pickering's information, I conceive he has been inattentive to Mr. Davy's scale in one essential point, to the great disparagement of our favourite Ruta Baga. Thus in that scale, though the medium aggregate of solubles in potatoes, is 200, whilst that of Ruta Baga is only 64, it must not be forgotten, that those solubles are different things, and differ widely in relation to nourishment; to say the least, sugar is thrice as nourishing as either starch or gluten, or as three to one—the excess of sugar in Ruta Baga, is the large sum of 331, which multiplied by 2, for excess of nourishment

gives 67 to be added to the aggregate of 64, amounting to 131, so that the figures may fairly stand, in a scale of nourishing matter, at 230 potatoes 131, Ruta Baga, whilst in a scale of solubles, it stands as Mr. Pickering has stated it.

This new statement will be greatly in favour of the Ruta Baga, and correspond much better with experience. It is true that nothing but a series of experiments with sugar can determine its real comparative difference with starch and gluten; but I leave it to the candid and intelligent to say, if I have not fixed on a scale of great moderation, very few would fall out with me in making it 4 to 1. Those who fatten birds in Europe for market, could tell us of the great nourishing powers of sugar, which they have to use, though so dear.—The unhappy Africans in the corn fields, and near the sugar boilers in the W. Indies, profit by this multum in parvo. Whilst the mendicant of Calabria, hard pushed, retires from the city, to scrape the manna, exuding from the bark of the ash of that country, to nourish his impoverished body.

Many species of the solanum or potato family, are certainly poisonous in some parts, if not in all; whilst others are harmless, or have their deleterious matter secreted in certain parts only.

The night shade is poisonous in every part, and the bitter sweet (*solanum dulcamara*) is a very active medicine on the nerves—the solanum carolinense, a native, is not well known, but the long sharp prickles on both sides of the leaves, seem to say to the gannivorous tribe, I am not for your use—whilst the fruit of the egg plant and the tomato, both solanums, are as freely used as the root of the Irish potato.—If we may judge from the effluvia of the leaves, the tomato has noxious juices in some of its parts, and I should be very hungry before I would taste the leaves, though the young tops or flowers of common Irish potatoes, are said to be fine sallad. I think the skin of the common potato is its worst part, and those who neglect paring them before cooking; especially towards spring, are yet unacquainted with their excellence. I wish some humane physician would undertake a series of experiments to ascertain the parts of the different species of solanum that contain the poisonous principle.

The great difference in opinion about turnips and turnip-tops—cabbages—Ruta Baga and Ruta Baga tops, giving a disagreeable flavour to milk, I have perfectly reconciled by actual experience—any of them may be fed once in 24 hours, and not oftener; pompions, bran &c. must form the intermediate feed—and I think, though do not know, that even garlick might be used twice a week. It appears, that those ill flavours pass off, if allowed time—see a paper partly on this subject in your Farmer of the 11th inst. signed a "A Subscriber."

I will here add to the stock of information you already possess, what little I know about the cultivation of the Ruta Baga.—In this country, off the waters, 10th a 15th of May is the time to sow for early, and the 10th a 15th July, for the late crop: the latter are best for the table: very

* It would seem that it was only by great accumulation, from often feeding, that these highly essential oils enter the udder, which is as it were, the ultimate point in the economy from the stomach in cattle.

good and nicely prepared soil, is necessary to ensure a crop when sowed, where they are to remain—very inferior soil will do to transplant them to—especially if the plants are large, which ensures their success—the root should be as large as the largest quill and upwards, when transplanted. They should not be sowed closer if so close as common turnips, and not near a wood. When left to grow the drills should be about 3 feet 6 inches apart, and from 10 to 12 inches in the line of the drill. The same soil and manuring will bring 20 per cent. more common turnip than Ruta Baga, judging by last year, which was a great turnip year in our land. The seed should be put one inch deep in the ground. I need not add, that they must be kept clean, and ploughed, if in drills—I cannot help thinking, that Mr. Pickering is a little prejudiced against them, or he never would find the difference in chopping these and carrots with a sharp spade.

RECONCILIATOR.

[The following plain hints contain good advice. The writer is, no doubt, what he signs himself, "A Practical Farmer," from whom we should be glad to hear again and again.]

Friend Skinner,

In perusing thy paper, I observe many useful hints on the rotation of crops, methods of manuring, fencing, &c. many of which are very instructive and profitable. But to do all these things, at the least possible expense, is the question, otherwise we might as Dr. Franklin says, "pay too dear for our whistle." In order to avoid this, a regular system of crops, ought to be established; the quantity of stock and the number of labouring hands fixed, and avoid as much as possible all deviation from the same; for regular system is more important in agriculture than in any other business that I am acquainted with, and the difference between riches and poverty depend upon it.

After things are thus far fixed, the next object is to continue business well, and keep every thing in order and ready, until they are wanted; never put off getting implements in readiness to seed, feed, &c. at leisure times; for when these things are wanted, you are hurried, and it is very injurious to regular business, to be interrupted on that account. To prevent confusion let every hand bring home the tool he is working with every evening, and put them in a house for the purpose, which will save much trouble in case of the change of weather, or other causes making it necessary to take the same tools to some other part of the farm the next day; and every hand should have his orders in the evening what is to be done the next day, which is of great advantage, and care should be taken through the day that all things work to suit each other; for instance, the ploughman should not wait for the hands, nor they for the ploughman, and never change the hands from the work they are about to any thing else, if it can be avoided; by these means the life and energy

of the labourers are preserved; which with good usage, never fails producing happiness and profit, for I am of the same opinion with Col. Taylor, the famous Virginian agriculturist, that stock and hands must be well kept, if we want profit from them; and as the keeping is, so is the profit.

A Practical Farmer.

Occasional Extracts.

ON THE USE OF SUMACH.

Coriaria—from a female Correspondent.

As respects the use of Sumach, we suffer no part of it to escape, from the root to the fruit. A strong decoction made of the root will assuage a swelling on a horse's back, by washing the part affected with the decoction as hot as it can be borne. The bark, stems, and leaves make a good dye for sheep skins, boiled strong, set with copperas, and the skins put in when warm, not hot, and well washed every two or three days. I have known hard, horny skins to become quite soft from the above process. The berries of the sumach make the best black dye for woollen, that we country folks can get. The berries being threshed off, which is easily done by laying the bunch on a clean floor and using a small stick; there should be a strong dye made with them; the wool or yarn placed in an iron pot, a layer of berries and one of wool or yarn alternately with a little copperas sprinkled on each layer of the yarn. The dye then poured on, and the pot of yarn, berries and dye made to simmer, (not boil, as that will have a tendency to rot, and give the yarn a soot colour—) kept warm a few days, then dried in the dye, (I mean not washed, before it is dried,) it makes a lasting black.

To the Editor of the American Farmer.

Lexington 10th Feb. 1820.

Dear Sir,

I send you a pod of the "coffee nut tree," sometimes called pea locust.

The coffee nut is a common tree growing in the forests of this country, always in the richest soil—a tall trunk but few branches—thickness at the stump 24 inches, very rough bark.

The fruit was used by the first settlers of the country as a substitute for coffee, to which it is very similar, whence the name.

Your obedient servant,
LEWIS SANDERS.

Note by the Editor.

[The pod in its exterior appearance resembles very nearly that of our honey locust—it contained six nuts, beautiful in form and colour, which have been distributed in a way that will ensure their being planted and attended to with great care.]

On the Management of Sheep.

Mr. Skinner.—With your permission, I beg leave to add the sixth minutes notice to the discriminating remarks of a "Marylander" in his 'five minutes reflection on sheep. It may possibly add another link to the able chain he has woven for the management of that useful animal. He states in No. 43, page 342, "should a spell of cold rainy weather overtake them within a few days after they are shorn, the only remedy is to house them till it is over." It is admitted the house may be resorted to with propriety, should the inclemency of the season require it; but that there is another remedy my practice and success at least proves, and those of my neighbours who have been governed by my advice have been equally fortunate in preserving their stock. A the time of shearing a mixture is prepared of equal parts of common fish oil and tar, incorporated together over a slow fire, and applied from head to tail of the animal, milk warm, at the instant the fleece is removed. The flock are then returned to their pasturage, and require no further care than that necessary attention which the farmer should at all seasons bestow on every animal of rural economy. This practice has been adopted and preserved in for five successive years, and with the annual purging of the flock, and treatment nearly assimilated to that recommended has been entirely successful. The rationale is left to able hands, such is the fact. The expressed juice of garlic is found from long experience an invaluable medicine in most of the diseases attending sheep, save old age and poverty.

A CEDED VIRGINIAN.

THE FARMER.

BALTIMORE, FRIDAY, MARCH 3, 1820.

*** This being the season for planting young orchards, some instruction on that head will doubtless prove acceptable to our readers. We have therefore selected the directions given under the head "management of fruit trees." These directions we perceive have been approved by the Agricultural Society of Massachusetts, and published in their memoirs; and assuredly they could not be sanctioned by higher authority.

*** A correspondent desires to have information as to the culture of the cauliflower, we confess our ignorance on the subject; we have been under the impression, that it was difficult to raise them in perfection, and would thank any of our correspondents to tell us how it may be most successfully done.

It is proposed to build a Bridge across South River, in Anne-Arundel county, in the line of communication between Annapolis and Washington; we hope the stock will be promptly taken.—We shall take further notice of this object of internal improvement, though the advantages are obvious at a glance.

*** Internal improvement being one of the chief objects of this journal, we have with pleasure recorded Mr. Maxcy's report on Public Schools. If all Legislatures possessed his public spirit, enlightened and directed by equal intelligence, Maryland would no longer shut her eyes on the example of New York, Pennsylvania, Virginia, and other states.

FROM THE OLIVE BRANCH.

Winter evening's amusement for Jane and me.

In summer days I till the ground,
And tug and toil and get my bread—
No interval can there be found,
Between my labour and my bed,
My wife declines to knit by night,
And I to read by candle light.

But when the south receives the sun
Beyond the equinoctial line—
When all my summer work is done,
Substantial pleasures then are mine.
Then Jane begins to knit at night,
And I to read by candle light.

I'm then content and never sigh,
Nor fly from home some bliss to find;
And Jane is pleased as well as I,
It so completely feasts her mind,
To sit her down to knit by night,
And hear me read by candle light.

For when I read she always hears.
And what she hears she tries to scan;
When ought to her obscure appears,
Then I explain it if I can.
O how she loves to knit by night,
And hear me read by candle light.

But when she drops a stitch and gapes,
Soon gapes again and nods her head.
I close my book, and say, perhaps
'Tis time my dear to go to bed—
So knit again to-morrow night,
And hear me read by candle light.

PICKAWAY BARD.

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